

# EarthFax Engineering Group, LLC

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**EarthFax**

December 13, 2017

Steve Christensen  
Utah Division of Oil, Gas and Mining  
1594 West North Temple  
Suite 1210  
Salt Lake City, Utah 84114-5801

C/007/0045  
Received 12/14/17  
Additional Info Received 1/22/18  
Task #5595

Submitted via email to: [stevechristensen@utah.gov](mailto:stevechristensen@utah.gov)

Subject: Wellington Dry-Coal Cleaning Facility  
Response to Division mid-term review comments  
Task #5487

Dear Steve:

At the request of BRC Wellington, I am pleased to submit electronic copies of changes to the Mining and Reclamation Plan for the Wellington Dry-Coal Cleaning Facility. These changes, which are accompanied by the required C1 and C2 Forms, were made to address comments provided in an August 11, 2017 letter from Daron Haddock to Kyle Edwards of BRC Wellington.

We appreciate your patience as we have been working with the Utah Division of Air Quality to address one of the deficiencies outlined in your Midterm Review Response. A Notice of Intent has been filed with DAQ to address that deficiency. We will keep you informed of the progress of that NOI as it is reviewed by DAQ.

We did not address one comment from DOGM concerning Revegetation Standards for Success. The comment requested information regarding plans to revegetate the northern portion of the disturbed area. As you may recall, the plan has always anticipated that the post-mining land use be for industrial purposes, which has been accepted in the past by DOGM. As a result, the plan has always been to revegetate only the southern third of the site, retaining the northern two-thirds for industrial use. We have added wording to indicate how the northern two-thirds would be stabilized in the absence of revegetation, but have not directly addressed the comment concerning revegetation of the northern two-thirds of the plant site.

It is also our understanding that DOGM has internally recalculated the reclamation bond amount. Therefore, we are not providing a revised reclamation cost estimate with this submittal.

Please contact me or Kyle Edwards (435-613-1631) if you have any questions regarding this submittal. Thank you for your assistance in this process.

Sincerely,

Richard B. White, P.E.  
Consulting Civil and Environmental Engineer  
EarthFax Engineering Group, LLC





**APPLICATION FOR COAL PERMIT PROCESSING**

Received 1/22/18

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Permittee:** BRC Wellington, LLC

**Mine:** Wellington Dry Coal Cleaning Facility

**Permit Number:** C/007/0045

**Title:** Response to mid-term review, Task ID 5487

**Description,** Include reason for application and timing required to implement:

Response to DOGM comments related to the mid-term review - Updated 11 Jan 2018

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?  
*Explain:* \_\_\_\_\_
- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you.** (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

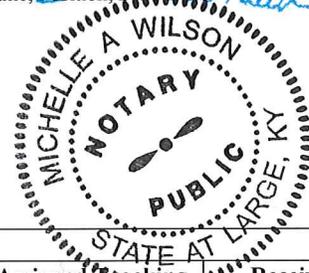
Steve M Rickmeier  
Print Name

Steve M Rickmeier  
Sign Name, Position, Date

Subscribed and sworn to before me this 22<sup>nd</sup> day of January, 20 18

Michelle A Wilson  
Notary Public

My commission Expires: 9-18, 20 18 }  
Attest: State of Kentucky } ss:  
County of Jefferson



<p><b>For Office Use Only:</b></p>	<p>Assigned Tracking Number:</p>	<p>Received by Oil, Gas &amp; Mining</p>
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### Total Required Bond Amount

Means No./Source	Description	Units	Est. Quan.	Unit Price	Total Price
		-	-	-	-
0241 16.17 0440	Demolish concrete slab with rebar	CY	624	\$26.73	\$16,679.52
0241 16.17 1140	Demolish footing, 2'x3' with rebar	LF	1,856	\$22.55	\$41,852.80
0241 16.17 2500	Demolish concrete, 12" thick with rebar	CY	188	\$42.47	\$7,984.55
0241 16.13 0500	Demolish small building, steel	CF	576	\$0.41	\$236.16
0241 13.38 2700	Demolish water pipe, 4" diameter	LF	220	\$6.70	\$1,474.00
0241 13.40 0160	Demolish 18" culvert (assume all steel CMP)	LF	255	\$3.90	\$994.50
0241 13.38 1600	Remove electric conduit	LF	1,055	\$2.83	\$2,985.65
0241 13.38 1600	Remove telephone condnt	LF	62	\$2.83	\$175.46
G1030 805 1320	Trench for conduit removal *	LF	1,592	\$4.08	\$6,495.36
0241 16.17 4200	On-site disposal of debris	CY	1,320	\$11.40	\$15,048.00
3123 16 43 5360	Excavate 7' deep trench †	BCY	141,167	\$0.61	\$86,112.00
3123 23 14 5000	Fill trench with waste coal ¥	LCY	141,000	\$0.94	\$132,540.00
3123 23 23 5000	Compact buried waste coal ¥	ECY	141,000	\$0.52	\$73,320.00
3123 23 14 5010	Spread fill over 20 acres	LCY	146,802	\$0.96	\$140,929.92
3291 13 23 3100	Prepare/gouge 30 acres	BCY	1,307	\$5.85	\$7,645.95
3292 19.14 5300	Apply seed mix φ	MSF	1,307	\$18.50	\$24,179.50
DOGMM	COVOL seed mix	ac	30.0	\$620.24	\$18,607.20
<b>SUBTOTAL</b>					<b>\$577,260.57</b>
Misc. Costs as a Percent of the Subtotal:					
Mob/Demob				10 %	\$ 57,726
Contingency				5 %	\$ 28,863
Engineering				2.5 %	\$ 14,432
Main office expense				6.8 %	\$ 39,254
Project management fee				2.5 %	\$ 14,432
Indirect costs				26.8 %	\$ 154,706
<b>TOTAL ESTIMATED COST</b>					<b>\$ 731,966</b>
Bond escalation rate (2017, per DOGM) =		1	0		
Number of years to be escalated =		5		\$ -	\$ 731,966
Escalation factor =		1			
<b>Escalated bond amount (rounded to nearest \$1,000) =</b>					<b>\$ 732,000</b>
Bond Amount Posted					\$ 732,000
Bond Deficiency					-
% Difference					-

\* Excavating for electrical and telephone conduit, water main and 18" CMP assumed to be 2' wide and 3' deep.

† Trench dimensions = 12.5 acres x 7' deep

¥ 95,000 Tons residual waste coal on site as per October 2017 Mid-term

φ Unit cost represents total Means cost minus the cost of materials. Seed cost provided on the next line.

### **1.1.3 Violation Information**

BRCW acknowledges that Cessation Orders have been issued by the States of Kentucky and Indiana to Bowie Refined Coal, LLC and BRC Chinook, LLC, respectively. A printout from the U.S. Office of Surface Mining Applicant/ Violator System regarding these Cessation Orders is provided in Appendix 1-6. BRCW understands that these related entities are in communication with the applicable State agencies in Kentucky and Indiana to resolve these Cessation Orders. ~~It is BRCW's position that the Cessation Orders should not affect the status of the DOGM permit for the Wellington facility during the mid-term review.~~ No Notices of Non-compliance have been issued within the last 3 years to BRCW.

### **1.1.4 Right-of-Entry Information**

The facility is located on lands that are entirely owned by the parent company of the operator (see Appendix 1-3). Hence, no other right of entry is required.

### **1.1.5 Status of Unsuitability Claims**

Since there is no mining at this facility, the issue of unsuitability claims is not applicable.

### **1.1.6 Permit Term**

The following information is presented to identify permit term requirements and stipulations. Operations at the facility began in January 2006 using an air-jig method to process coal-bearing materials. Termination of operations will be determined by economic conditions. The timing of this termination is, therefore, unknown. It is anticipated that the Applicant will operate at the site for a period in excess of 5 years.

### **2.3.1.4 Construction, Modification, Use, and Maintenance of Topsoil Stockpiles**

The two topsoil storage piles at the facility were constructed in August 2005 and consist of 1,302 cubic yards of soil that was removed from the ground surface during site grading prior to constructing the facility. Since the topsoil averaged less than six inches thick, it was not segregated before it was stockpiled. The stockpiled materials were initially placed on a stable surface in the southeast portion of the permit area but were then moved in October 2010 to the location indicated on Plate 5-1 to accommodate site activities. The west stockpile contains 302 yd<sup>3</sup> of topsoil and the southwest stockpile contains 1,000 yd<sup>3</sup> of topsoil. The stockpiles were protected from wind and water erosion by being revegetated on November 18, 2010 with the seed mix contained in Table 3-1 (minus *Eriogonum inflatum*, *Oenothera caespitosa*, and *Stipa hymenoides* due to a lack of availability at the time) and by installing silt fencing below the stockpiles to help trap sediment coming off the stockpiles. A marker has been placed on the piles to indicate that they contain topsoil. It is not anticipated that this topsoil will be moved or disturbed again until required for redistribution during final reclamation.

Areas where topsoil is stored in situ are also noted on Plate 5-1. Based on observations made by DOGM personnel during a May 2017 site investigation, it is estimated that over 500 cubic yards of topsoil exist in these areas. These areas will also be marked to indicate that they contain topsoil.

## **2.3.2 Topsoil and Subsoil Removal**

### **2.3.2.1 Topsoil Removal and Segregation**

It is not anticipated that additional soil disturbances will occur at the site. However, if such disturbances do occur, all topsoil thicker than 6 inches will be removed prior to disturbance as a separate layer from the subsoil, segregated, and stockpiled separately. Topsoil less than 6 inches thick will be removed according to Section 2.3.2.3.

### **2.3.2.2 Poor Topsoil**

Topsoil that is of an insufficient quantity or of poor quality (for sustaining vegetation) will be removed as a separate layer and segregated. Such operations will be done with approval of DOGM and in compliance with R614-301-233.100.

## **CHAPTER 4**

### **LAND USE AND AIR QUALITY**

#### **4.10 Land Use**

##### **4.1.1 Environmental Description**

###### **4.1.1.1 Premining Land Use**

The northern 10 acres within the permit area were purchased by COVOL Engineered Fuels, LC from Terra Systems Inc. in 2003. The southern 20 acres within the permit area were sold to COVOL Engineered Fuels, LC in 2005 by Price City. The entire site was purchased in 2013 by Bowie Refined Coal and/or its subsidiaries and/or affiliates (see Chapter 1). Due to its high alkaline and saline content, the land is poorly suited for agriculture. Construction of the facility was initiated in July 2005, and limited operations began in January 2006.

**Land Use Map.** Zoned land use in the vicinity of the site is indicated on Figure 4-1.

**Land Capability.** The land capability of the permit and adjacent areas is suited to its current industrial zoning status. The soils are composed primarily of alkaline, saline, weathered shale that do not readily support agricultural activities. The Natural Resources Conservation Service indicates that these soils have a poor revegetation potential due to the lack of precipitation and infertile soil properties (Jensen and Borchert, 1988). The native vegetation consists of a salt desert community that is poorly suited for wildlife and livestock use.

**Land Use Description.** According to the development code of Carbon County, Utah (Carbon County, 2003), the surface lands are zoned I-2 (General Industrial) as follows:

*“The I-2 General Industrial zone has been established for the purpose of providing a place where firms engaged in mining and related activities, and/or heavy manufacturing, processing and fabrication of goods and materials, can locate with minimum conflict or deleterious effect on surrounding properties and the natural environment, and with a high degree of protection from encroachment of residential and commercial uses. It is also the intent of this zone to promote the economic well being of the people within the County and to broaden the tax base.”*

The land has also been zoned by Wellington City as M-1 (light industrial). Permitted uses under this zoning classification include a variety of industrial and manufacturing operations (see Appendix 1-4).

BRC Wellington (“BRCW”) operates a dry coal cleaning facility at the site, separating coal from waste rock using a dry (air-enhanced) process. This work is done on a toll basis, with BRCW not having ownership of the coal. All material is shipped off site in accordance with client contracts once processing is completed. Activities at the site are in accordance with the I-2 and M-1 zoning as described above.

**Cultural and Historic Resources Information.** A Class I cultural resource inventory of the area surrounding the Wellington facility was conducted from the records of the Utah State Historical Preservation Office (“SHPO”). The results of this survey are provided in Appendix 4-1. The qualifications of the individual who conducted the records search are provided in the resume contained in Appendix 4-3. As indicated, 10 inventories have extended to areas within 1 mile of the BRCW facility, with only one cultural resource site identified within this 1-mile radius. This site was an insignificant lithic scatter located more than 500 feet from the BRCW site. Its location with respect to the BRCW facility is not shown in Appendix 4-1 due to SHPO data restrictions. No cultural resource sites have been identified within the BRCW facility boundaries.

#### **4.1.1.2 Previous Mining Activity**

No previous mining activity occurred in the permit area.

## **4.1.2 Reclamation Plan**

### **4.1.2.1 Postmining Land Use Plan**

As indicated in Section 2.2.2.2 of this application, the soil at the BRCW facility is poorly suited for agricultural use. Furthermore, native vegetation in the area is poorly suited for rangeland use of the site (see Section 3.2.1). Hence, in accordance with R645-301-413.120, rather than restoring the land to its pre-disturbance use it will be restored to a higher or better post-operations industrial land use consistent with the current zoning of the site and adjacent areas. The extent of site restoration following operations is discussed more fully in Section 5.40 of this permit application.

The land occupied by the Wellington Dry Coal Cleaning Facility will adequately support future industrial land uses after operations are complete. The Applicant intends that the post-operational land uses will be consistent with the industrial land use plans approved by Carbon County and Wellington City. Final reclamation activities will be completed in a manner consistent with that intended post-operation industrial land use and in accordance with Carbon County and Wellington City zoning ordinances. Given its excellent access via Ridge Road, its gentle terrain, and the existence of utilities, the land will have value as an industrial site following closure of the BRCW facility.

### **4.1.2.2 Land Owner or Surface Manager Comments**

BRCW owns and operates the facility. Thus, surface land owner comments are not required. All operations will be conducted in accordance with applicable local, State, and Federal regulations.

#### **4.1.2.3 Suitability and Capability**

Final fills will not contain excess spoils.

#### **4.1.3 Performance Standards**

##### **4.1.3.1 Postmining Land Use**

The proposed post-operations land uses will be industrial. The land is capable of supporting such a land use.

##### **4.1.3.2 Determining Premining Uses of Land**

The post-operations land use is the same as that which existed before the operation began.

##### **4.1.3.3 Criteria for Alternative Postmining Land Uses**

No alternative post-operations land uses are anticipated.

#### **4.1.4 Alternative Land Use**

No alternative post-operations land uses are anticipated.

### **4.20 Air Quality**

This section includes descriptions of plans to comply with the Clean Air Act and applicable Utah or federal statutes and regulations pertaining to air quality standards.

#### 4.2.1 Air Quality Standards

BRCW's operations are being conducted in compliance with the requirements of the Clean Air Act and the Utah Air Quality Regulations.

#### 4.2.2 Compliance Efforts

Air emissions from the facility comply with applicable local, state, and federal standards, and are permitted with the Utah Division of Air Quality (DAQ) under Approval Order (AO) DAQE#AN2952001-05 issued on June 30, 2005. Under the permit, the facility qualifies as a minor source of particulate emissions. Controls at the facility include dust suppression of the roadways with water, a telescoping drop chute on the primary stacking conveyor, enclosed screen and crusher, and fixed discharge chutes on the stacking conveyors and at the truck loadout stations. A copy of the existing AO is included in Appendix 4-2. A Notice of Intent requesting modification of the existing AO is also included in Appendix 4-2. A copy of a letter from the prior owner to DAQ concerning the onset of production is also included in Appendix 4-2. The existing permit allows for 7.12 tons of PM<sub>10</sub> emissions per year, provided that BRCW complies with the stipulations of the permit. These stipulations are summarized in the following paragraphs.

**Fabric Filter Baghouses.** All of the exhaust from the air cleaning tables is channeled through baghouses before being discharged to the atmosphere. The fabric filters used in each baghouse will comply with the specifications for porosity and differential pressure as specified in the AO.

**Opacity.** Visible emissions from the components of the facility are restricted to the following opacity limits:

- Crushers: 15%

- Screens: 10%
- Conveyor Transfer Points: 10%
- Baghouse Exhaust Stacks: 10%
- Haul Road Traffic/Vehicles: 20%
- All other points: 20%

**Process Limitations.** The facility is limited to processing no greater than 1,500,000 tons of coal per rolling 12-month period.

**Fugitive Dust Controls.** Standard procedures, including water and/or chemical treatment of roads and other areas with vehicle traffic, will be followed in accordance with the AO. Storage piles will also be sprayed with water as necessary. In-plant haul roads will be limited to a total length of 0.69 miles, with a speed limit of 10 miles per hour. They will be paved and swept as needed, as per the AO.

**Other Controls.** Conveyors and stackers are covered or enclosed. Discharge chutes have been installed on radial stacker conveyor drops and truck loadouts at the alternate product loading hopper and the product storage silo.

#### **4.2.3 Monitoring Program**

DOGM does not require an air monitoring program for the Wellington Dry-Coal Cleaning Facility at this time. A monitoring program has been established with the DAQ under AO# AN2952001-05. The program includes the installation of manometers to measure the differential pressures across the filters in the baghouses, a protocol for measuring opacity from fugitive dust road emissions, and specifies the types of records to be maintained for control measures that are applied. Additional details for the DAQ air monitoring program are included in the AO document, which is included in Appendix 4-2.

## **REFERENCES**

Carbon County, 2003. The Development Code for Carbon County, Utah. Revised March 2003.

Jensen, Earl H. and James W. Borchert, 1988. Soil Survey of Carbon Area, Utah. U.S. Department of Agriculture Soil Conservation Service. 294 pp.

BRC Wellington LC  
Dry-Coal Cleaning Facility

Permit Application  
October 2013

**APPENDIX 4-2**

Utah Division of Air Quality  
Approval Order

**APPENDIX 4-3**

Resume of Individual Conducting the  
Cultural Resource Evaluation

## CHAPTER 5

### ENGINEERING

#### 5.10 Introduction

This chapter provides a discussion of general engineering aspects, an operation plan, a reclamation plan, design criteria, and performance standards related to the Wellington Dry-Coal Cleaning Facility. The existing and proposed facilities have been or will be designed, located, constructed, maintained, and reclaimed in accordance with the operation and reclamation plans.

It should be noted that this facility is used for coal cleaning and is not a coal mine. Thus, several of the sections in this chapter that refer to mining operations are not applicable and have been noted as such.

#### 5.1.1 General Requirements

This permit application includes descriptions of the proposed coal cleaning and facility reclamation operations together with the appropriate maps, plans, and cross sections. Methods and calculations utilized to achieve compliance with the design criteria are also presented.

#### 5.1.2 Certification

Where required by the regulations, cross sections and maps in this permit application have been prepared by or under the direction of, and certified by, qualified registered professional engineers or land surveyors. As appropriate, these persons were assisted by experts in the fields of hydrology, geology, biology, etc.

##### 5.1.2.1 Cross Sections and Maps

**Previously Mined Areas.** There are no previously mined areas near the facility.

**Surface Facilities.** A general site map showing the locations of structures, coal cleaning equipment, conveyors, and piles in addition to surface drainage is shown on Plate 5-1. This map includes the locations of topsoil and coal material stockpiles, topsoil that is stored in situ, runoff control structures, and sedimentation ponds. Except for the sedimentation ponds, no other water treatment facilities exist at the site. Plate 5-1 also shows the locations of air pollution control equipment.

The following facilities or activities do not exist or occur within the permit area:

- Coal mining,
- Excess spoil,
- Durable rock fills,
- Storage/disposal of coal mine waste,
- Coal processing waste banks, dams, or embankments, and
- Disposal of non-coal (non-waste rock) waste

It should be noted that, since BRC Wellington (“BRCW”) toll processes material received from off-site clients, some of this material may have been classified at those off-site operations as coal mine waste or coal processing waste. However, this material is received and processed by BRCW as coal. Prior to receipt within the permit area, BRCW will evaluate the material to ensure that it can be economically processed. If BRCW cannot economically process the material, the material will be rejected and not allowed on site. Material that is accepted by BRCW is processed to generate one of two (or both) products: high-quality coal and/or low-quality (low-BTU) coal. This coal is then shipped off site (either directly or blended with other material) in accordance with contract requirements. None of the material processed or generated within the permit area is considered coal mine waste or coal processing waste.

**Surface Configurations.** The topography noted on Plate 5-1 is based on a survey of the site performed in September 2008, updated based on a Google Earth image dated August 17, 2015 and a site survey conducted in December 2016. Plate 5-1 shows the locations of processing equipment, coal and topsoil stockpiles, topsoil that is stored in situ, roadways, equipment storage

areas, drainage features, etc. as of December 2016. Site reclamation is expected to involve only minor amounts of earthwork.

**Hydrology.** Certified maps and cross sections associated with the hydrology of the Wellington Dry-Coal Cleaning Facility area are provided in Chapter 7.

**Geology.** Certified maps and cross sections associated with the geology of the Wellington Dry-Coal Cleaning Facility area are provided in Chapter 6.

### 5.1.2.2 Plans and Engineering Designs

All plans and engineering designs presented in this permit application were prepared by or under the direction of and certified by a qualified registered professional engineer.

**Excess Spoil.** No excess spoil will be generated from the permit area.

**Durable Rock Fills.** No durable rock fills will exist in the permit area.

**Coal Mine Waste.** No coal mine waste will be stored in the permit area.

**Impoundments.** Two impoundments are present at the site – one in the southeast corner and one in the southwest corner (see Plate 5-1). They are intended to temporarily contain runoff from the disturbed areas of the site. They were designed and certified by a professional engineer using current, prudent, engineering practices.

**Primary Roads.** Plate 5-1 shows ~~All~~ roads within the permit area that are considered primary roads as defined in R645-301-527.120. These roads have been certified by a professional engineer as meeting the requirements of R645-301-534.200 and R645-301-742.420 (see Appendix 5-1).

**Variance from Approximate Original Contour.** There has been no significant variance from the original contour at this facility. Thus, no variance from the approximate original contour

of the site is being requested. Since the facility is located on land zoned for heavy industrial use, future industrial uses of the property will benefit from any site grading which has already been performed.

### **5.1.3 Compliance with MSHA Regulations and MSHA Approvals**

#### **5.1.3.1 Coal Processing Waste Dams and Embankments**

No coal processing waste dams or embankments exist within the permit area.

#### **5.1.3.2 Impoundments and Sedimentation Ponds**

No impoundments or sedimentation ponds in the permit area meet the size criteria of 30 CFR 77.216(a).

#### **5.1.3.3 Underground Development Waste, Coal Processing Waste, and Excess Spoil**

No underground development waste, coal processing waste, or excess spoil is disposed of in the permit area.

#### **5.1.3.4 Refuse Piles**

There is no coal refuse stored in the permit area.

#### **5.1.3.5 Underground Openings to the Surface**

There are no underground openings within the permit area.

#### **5.1.3.6 Discharges to Underground Mines**

No discharges occur from the surface to underground mine workings in the permit area.

#### **5.1.3.7 Surface Coal Mining and Reclamation Activities**

No surface coal mining and reclamation activities occur in the permit area.

#### **5.1.3.8 Coal Mine Waste Fires**

No coal mine waste will be stored in the permit area. If any coal-related fires occur within the permit area, these will be reported immediately to MSHA and DOGM. Immediate remedial action will be taken as deemed necessary by BRCW to protect public health and safety as well as the environment. Following initial remedial efforts, a long-term plan will be formulated in discussion with MSHA and DOGM to extinguish any existing fires and prevent future fires.

### **5.1.4 Inspections**

#### **5.1.4.1 Excess Spoil**

Excess spoil is not generated at the Wellington Dry-Coal Cleaning Facility.

#### **5.1.4.2 Refuse Piles**

No refuse piles will be located in the permit area.

#### **5.1.4.3 Impoundments**

Inspections of the sedimentation ponds associated with the Wellington Dry-Coal Cleaning Facility will be made at least quarterly. A report of inspection will be prepared by a qualified individual and maintained on site after each inspection.

No new impoundments are planned for construction at the site. If new impoundments are constructed, they will be inspected during and after construction in accordance with R645-301-514.300.

All sedimentation ponds associated with the Wellington Dry-Coal Cleaning Facility will be inspected annually by a registered professional engineer. A certified report will be prepared by a registered professional engineer and submitted to DOGM shortly after each inspection. This report will indicate whether or not the impoundment has been constructed and maintained as designed and in accordance with the approved plan and the R645 rules. The report will also include a discussion of any apparent instability, structural weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, existing or required monitoring procedures and instrumentation, and any other aspects of the structure affecting stability, as noted during the inspection. A copy of the inspection report will be maintained at the facility office.

No impoundments that are subject to 30 CFR 77.216 currently exist or are planned within the permit area. If impoundments subject to 30 CFR 77.216 are constructed in the future, these impoundments will be inspected in accordance with 30 CFR 77.216-3.

## **5.1.5 Reporting and Emergency Procedures**

### **5.1.5.1 Slides**

Due to the relatively level plant site, the potential for slides is essentially nonexistent. However, if a slide occurs within the permit area that may have a potential adverse effect on the public, property, health, safety, or the environment, BRCW will notify DOGM by the fastest available means following discovery of the slide and will comply with any remedial measures required by DOGM.

### **5.1.5.2 Impoundment Hazards**

If any examination or inspection of an impoundment discloses that a potential hazard is associated with that impoundment that may have an adverse effect on the public, property, health, safety, or the environment, the person who examined the impoundment will promptly inform

DOGM of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, DOGM will be notified immediately.

### 5.1.5.3 Temporary Cessation of Operations

Prior to a temporary cessation of operations within the permit area that will last for a period of 30 days or more or as soon as it is known that a temporary cessation will extend beyond 30 days, BRCW will submit to DOGM a notice of intention to cease or abandon operations. This notice will include the following:

- A statement of the exact tonnage of coal which ~~has been cleaned by the facility prior to~~ remains on site at the time of the temporary cessation of operations,
- A discussion of the extent and kind of reclamation activities which will have been accomplished prior to cessation of operations, and
- An identification of the regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation.

During the temporary cessation, BRCW will support and maintain all surface access and will also secure all facilities. The exterior fence surrounding the operations will be maintained and all gates will be closed and locked to prevent unauthorized access to the site by humans and animals, including access to subsurface bins and reclaim tunnels.

## 5.20 Operation Plan

### 5.2.1 General

#### 5.2.1.1 Cross Sections and Maps

**Previously Mined Areas.** There are no active, inactive, or abandoned underground workings, including openings to the surface, within the permit and adjacent areas. No previously surface-mined areas exist within the permit area.

**Existing Surface and Subsurface Facilities and Features.** Plate 5-1 depicts the following information:

- The location of surface and subsurface features within, passing through, or passing over the permit area, including major electric transmission lines and pipelines (no agricultural drainage tile fields exist within the permit area),
- Each public road located in or within 100 feet of the permit area, and
- The location of each sedimentation pond within the permit area (there are no permanent water impoundments, coal processing waste dams, or coal processing embankments within the permit area).

Buildings located in the permit area are noted on Plate 5-1, while those within 1,000 feet of the permit area are noted on Figure 5-1, including an identification of the current use of the buildings.

**Landowner, Right-of-Entry, and Public Interest.** Figure 5-2 shows the boundaries of lands and the names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the permit area. BRCW is the owner of all lands within the permit area, as indicated on the legal description provided on the warranty deeds in Appendix 1-3. The permit area consists of 30 fee acres. No Federal or State land exists within the permit area. As the owner of the property, BRCW has a legal right to operate on all of the lands within the permit area. Operations are conducted within 100 feet of a public road as indicated on Plate 5-1.

**Mining Sequence and Planned Subsidence.** No mining will occur at this facility. Therefore, no subsidence is anticipated.

**Land Surface Configuration.** Only minor grading of the site has occurred from its pre-operations condition. Original site elevations across the facility dropped approximately 30 feet from north to south, resulting in an average slope of approximately 2% (see Plate 5-1).

**Surface Facilities.** Plate 5-1 shows the locations of the following surface facilities:

- Buildings, utility corridors, and facilities to be used,
- Coal weighing, unloading, separating, stacking, and loading facilities,
- Air emissions controls,
- Sedimentation ponds,
- Roads, and
- Stockpile areas.

The fenced area shown on Plate 5-1 is the same as the land area for which a performance bond or other guarantee has been posted.

It should be noted that the size and location of coal stockpiles shown on Plate 5-1 are correct based on the survey date noted on that plate. However, these piles are dynamic in their configuration, changing in size based on processing requirements. Although the pile sizes may change from time to time, the piles will remain generally as located on Plate 5-1.

The locations of the topsoil stockpiles and topsoil that is stored in situ are shown on Plate 5-1. No coal processing waste banks, dams, or embankments exist in the permit area. Similarly, no spoil or coal preparation waste sites exist in the permit area.

General refuse that is generated on site is stored in dumpsters at the location indicated on Plate 5-1. This waste consists predominantly of paper, cardboard, and miscellaneous garbage. This non-hazardous, non-toxic, non-coal, non-waste rock refuse is disposed of periodically at the East Carbon Development Company landfill.

**Transportation Facilities.** Roads that have been constructed, used, or maintained by BRCW in the permit area for the mining and reclamation operations are shown on Plate 5-1. All of the conveyors in the permit area are also shown. Drainage structures associated with the roads are discussed in Section 7.5.2.2. A standard road cross section is provided on Figure 5-3.

As indicated on Plate 5-1, roads within the permit area consist of the following:

- Access road
- Loop roads
- Scale road
- Scale bypass road
- Dump bin road
- Loading silo road

These roads are all constructed with the typical cross section shown in Figure 5-3. Road widths vary generally from 12 to 40 feet within the permit area, depending on the type of vehicle and purpose of the road (see Appendix 5-1). The gradient of the access road is approximately 4%. Gradients of the remaining roads are generally 1 to 2% except in short reaches to access loading/unloading areas (where gradients of up to 5% are achieved). The surface of the access road is asphalt. The surface of the remaining roads throughout the permit area, except the ~~southern third of the~~Middle and South Hoop ~~Roads~~, consists of minus 2-inch material that has been compacted in place. No significant cuts were made during construction of any of the roads. The surface of the ~~southern third of the~~Middle and South Hoop ~~Roads~~ consists of crushed coal. The Middle Loop Road is open only when the location is not occupied by coal piles. Fill embankments, constructed of the same materials used for the road surface, are located primarily along the Dump bin road and the Loading bin road, as shown on Plate 5-1. The locations of culverts and drainage ditches associated with the permit-area roads are also noted on Plate 5-1. Additional information regarding the facility roads and a discussion of the adequacy of the roads to serve site needs is provided in Appendix 5-1.

#### 5.2.1.2 Signs and Markers

**Permit Identification Signs.** A permit identification sign has been placed so that it is visible from where the facility access road joins Ridge Road. The sign measures 4 feet by 8 feet and contains the following information:

- The name, business address, and telephone number of the permittee and

- The permanent program permit number as obtained from DOGM.

The sign will be retained and maintained until after the release of all bonds for the permit area.

**Perimeter Markers.** The perimeter of the facility (disturbed area boundary) is marked with a fence.

**Buffer Zone Markers.** Since the facility is not located near a perennial or intermittent stream channel, there are no stream buffer zone markers at the site.

**Topsoil Markers.** A marker will be placed on each topsoil stockpile and topsoil that is stred in situ indicating that it contains topsoil.

### 5.2.2 Coal Recovery

Coal recovery at the Wellington Dry-Coal Cleaning Facility is performed using air and vibratory methods to derive useable grades of coal from high-ash coal delivered from nearby coal mining operations. All coal processed by BRCW is owned by a client that intends to sell the coal following processing by BRCW. Since BRCW is paid on a toll basis for cleaning the coal, it is in BRCW's best interest to maximize the use and conservation of the coal resource.

The standard commercial alternative to the process used by BRCW to clean coal is to use liquid-based separation technologies. These technologies require the use of significant quantities of water and chemical additives which must then be disposed of when no longer useful. Since the BRCW process avoids the use of these liquids, the recovery methods used at the site allow BRCW to recover coal in a manner that protects the environmental integrity of the region.

### 5.2.3 Mining Methods

No mining occurs at this facility. This is a dry-coal cleaning facility in which coal is brought from off-site mine sources and processed into a value-added product.

As with liquid-based coal cleaning operations, the BRCW process relies on density differences to separate high-quality coal from low-quality coal. In general, raw material is introduced into the process and air (rather than liquid) is injected at appropriate pressures and volumes to separate the lighter coal from the heavier material that contains coal and ash. The clean coal product and the “reject” are either both returned to the client or, following return of the clean coal to the client, BRCW blends the “reject” (which is actually a high-ash, low-quality coal) with other coal processed at the site in a manner that still allows clients to meet contract requirements. By using a dry cleaning rather than a liquid cleaning process, BRCW avoids water pollution and precludes the attendant hazards to the health and safety of the public.

Depending on coal quality and other factors, the BRCW facility can process approximately 2,500 tons per day of coal under ideal conditions. However, the amount of coal processed at the BRCW facility on an annual basis is fully dependent upon client requests. Therefore, it is impossible for BRCW to provide an estimate of the anticipated annual and total processing of coal. During the period of October 2016 through September 2017, the plant processed 252,167 tons of coal. The amount of coal processed each year will be indicated in the annual report submitted by BRCW to DOGM.

#### **5.2.4 Blasting and Explosives**

Blasting and explosives will not be stored or used at the site.

#### **5.2.5 Subsidence**

There will be no underground mining or subsidence at this facility. Hence, no pre-subsidence survey will be conducted, no areas need to be protected from subsidence, no subsidence

control plan will be developed, no subsidence control measures will be implemented, no subsidence damage repair will be performed, and no public notice of underground mining activities will be required.

## **5.2.6 Mine Facilities**

Although the Wellington Dry-Coal Cleaning Facility is not a mine, it contains coal processing equipment that is detailed in the following sections.

### **5.2.6.1 Mine Structures and Facilities**

The Wellington Dry-Coal Cleaning Facility was constructed from July 2005 to January 2006. The facility layout is noted on Plate 5-1. Table 5-1 lists the existing structures at the facility. All structures are actively maintained and are in good functional condition. All of the structures were constructed specifically for use as coal cleaning facilities, have been used and maintained since construction, and are considered adequate to meet the requirements of R645-301.

Selected structures and facilities will be removed following operations in accordance with the reclamation plan discussed in Section 5.40.

### **5.2.6.2 Utility Installation and Support Facilities**

**Utility Installations.** All operations will be conducted to prevent damage, destruction, or disruption of services provided by electric lines, telephone transmission stations, water lines, and sewer lines which pass over, under, or through the permit area. Since there is no planned subsidence on site, all utilities are located within non-subsidence zones.

**Support Facilities.** Support facilities at the Wellington Dry-Coal Cleaning Facility will be operated in accordance with the permit issued for the facility. Support facilities will be located, maintained, and used in a manner that:

- Prevents or controls erosion and siltation, water pollution, and damage to public or private property,
- To the extent possible, using the best technology currently available, minimizes damage to fish, wildlife, and related environmental values, and
- Minimizes additional contributions of suspended solids to stream flow or runoff outside the permit area.

All support facilities will be removed following operations in accordance with the reclamation plan discussed in Section 5.40.

**Water Pollution Control Facilities.** Water pollution control facilities at the Wellington Dry-Coal Cleaning Facility consist of two sedimentation ponds and the appurtenant structures associated with them. Also, a septic system handles sanitary waste from the site office building. The sedimentation ponds and the septic system will remain intact for the next land user following operations. A discussion of the ability of these ponds to meet the permanent impoundment criteria of R645-301-733.220 through 733.226 is provided in Section 7.3.3.2 of this permit application. Site reclamation is discussed in Section 5.40.

The sedimentation ponds and appurtenant structures have been constructed as discussed in Chapter 7 and are used and maintained as discussed in Section 5.3.3.7.

## 5.2.7 Transportation Facilities

### 5.2.7.1 Road Classification

The access road that leads to the facility from Ridge Road is used to transport coal and is classified as a primary road. Plate 5-1 indicates the interior roads at the facility that are also used to transport coal and classified as primary. The remaining roadways within the facility are used for site access only and are classified as ancillary under R647-301-527.100.

### 5.2.7.2 Description of Transportation Facilities

No surface conveyors (other than those used to transfer and temporarily stockpile coal and byproduct) or rail systems have been or will be constructed, used, or maintained within the permit area.

**Road Specifications.** Cross sections and profiles of roads that are used or maintained by BRCW are provided in Figure 5-3. Information regarding road drainage is presented in Chapter 7. Additional information regarding permit-area roads is provided in Section 5.2.1.1.

Ridge Road is a paved county road that extends from State Highway 10, just south of Price, Utah to U.S. Highway 191 in Wellington, Utah (a distance of approximately 7 miles). The facility ~~H~~Loop ~~R~~oad encircles the facility which includes a broad area in which materials are stockpiled (see Plate 5-1). The Utah Division of Air Quality Approval Order for the operation indicates that the ~~North H~~Loop ~~R~~oad will be paved once full operations are underway. However, it has been BRCW's experience that more dust is generated from paved roadways than from unpaved roadways since particulates on a paved roadway tend to be ground to even finer particle sizes while particulates that land on roadways constructed as at the Wellington site tend to work into the permeable road surface and are adequately controlled by dust-suppression watering. Therefore, BRCW will maintain the current road surfaces and modify the Utah Division of Air Quality Approval Order appropriately.

Roads within the permit area are maintained and repaired as needed using a front-end loader to remove wash-board bumps and fill potholes. This maintenance work is performed at least once per month (more often, if needed). At least once each year a grader is brought on site to rework the road surfaces as needed and clean roadside ditches. This maintenance will occur as needed to ensure the safety and proper functioning of trucks and equipment. Any roads within the permit area that are damaged by a catastrophic event, such as a flood or earthquake, will be repaired as soon as practical after the damage has occurred.

**Drainageway Alterations.** No alterations or relocations of natural drainageways are required within the permit area to accommodate the needs of transportation systems.

## **5.2.8 Handling and Disposal of Coal, Excess Spoil, and Coal Mine Waste**

### **5.2.8.1 Coal Handling and Transportation**

No coal is mined at the site. All coal is trucked to the site, where it is weighed, cleaned, temporarily stockpiled, and trucked off site to its end-use destination. The length of time during which coal is stored on the site is largely dependent on client decisions (e.g., coal sales, blending, etc.) that are beyond the control of BRCW.

### **5.2.8.2 Overburden**

No overburden is removed, handled, stored, or transported within the permit area.

### **5.2.8.3 Spoil, Coal Processing Waste, Non-Coal Waste, and Mine Development Waste**

**Excess Spoil.** No spoil is generated at the Wellington Dry-Coal Cleaning Facility.

**Coal Processing Waste.** As indicated in Section 5.1.2.1, BRCW processes all material on site as coal, even if some of this material was classified by client facilities as coal processing waste. Hence, this material is considered a product and not a waste. The facility is operated so that all of the coal cleaning products are marketable either as high-quality coal or low-quality coal. This is accomplished by blending various grades of coal so that they satisfy the ash requirements of its customers. Thus, the plant will not generate coal processing waste.

**Non-Coal Mine Waste.** Non-coal waste generated in the permit area is temporarily stored in dumpsters and is regularly collected to be disposed of at the East Carbon Development

Company landfill. No non-coal waste is disposed of within the permit area. No non-coal waste that is defined as hazardous in 40 CFR 261 is currently generated at the facility. If such waste is generated in the future, it will be handled in accordance with the requirements of Subtitle C of the Resource Conservation and Recovery Act and any implementing regulation.

**Underground Development Waste.** No underground development waste is generated at the Wellington Dry-Coal Cleaning Facility.

**Minimization of Acid, Toxic, and Fire Hazards.** The sources of coal at the Wellington Dry-Coal Cleaning Facility are located in the Book Cliffs, Wasatch Plateau, and Emery Coal Fields, which historically have not produced acid or toxic coals. Furthermore, coal is only temporarily stored at this facility, the native soils in the permit area are alkaline (see Section 2.2.2.2), and sediment and precipitation runoff is controlled by drainage ditches and sedimentation ponds. Thus, hazards due to acid or toxic coal are either non-existent or greatly minimized by the lack of deleterious materials in the parent product, the temporary nature of on-site storage prior to processing, and the alkaline nature of the native soils at the site that serves to neutralize the effects of potential acidity.

Because coal that is cleaned in the permit area is only temporarily stored at the facility, there is no significant potential for this coal to spontaneously combust. Any coal fires that do occur will be handled as outlined in Section 5.1.3.8. No waste materials that constitute a fire hazard (i.e. grease, lubricants, paints, and flammable liquids) are accumulated where the temporary stockpiles are located.

#### **5.2.8.4 Dams, Embankments, and Impoundments**

No dams, embankments, or impoundments are used for the handling or disposal of coal, overburden, excess spoil, or coal mine waste in the permit area.

### **5.2.9 Management of Mine Openings**

There are no mine openings at the Wellington Dry-Coal Cleaning Facility.

## **5.30 Operational Design Criteria and Plans**

### **5.3.1 General**

This application contains a general plan for each sedimentation pond within the permit area. No other water impoundments or coal processing waste banks, dams, or embankments exist in the permit area. Since subsidence will not occur at the site, and no underground mining has occurred beneath the site, no damage will result to facility structures due to subsidence.

### **5.3.2 Sediment Control**

Sediment-control measures for the Wellington Dry-Coal Cleaning Facility are described in Section 7.3.2. The sedimentation structures at the facility consist of two sedimentation ponds on the southeast and southwest corners of the yard, and a system of drainage ditches that report to them. Runoff-control structures have been designed to convey runoff in a non-erosive manner.

In addition to the use of sedimentation ponds and properly designed runoff-control facilities, sediment yields in the permit area are minimized by disturbing the smallest practicable area during the construction or modification of surface facilities, and contemporaneously reclaiming areas suitable for such reclamation.

### **5.3.3 Impoundments**

#### **5.3.3.1 Slope Stability**

Except for small berms along the crests, the sedimentation ponds are constructed below grade. Slope stability analyses are, therefore, not necessary.

### **5.3.3.2 Foundation Considerations**

The sedimentation ponds are constructed below grade in stable, natural soil. Cross sections of the sedimentation ponds are presented in Chapter 7 of this document.

### **5.3.3.3 Slope Protection**

The outslopes and inslopes of the sedimentation ponds are periodically inspected for signs of surface erosion. The inlets and outlets of the ponds are armored with rip rap.

### **5.3.3.4 Embankment Faces**

Sedimentation pond inslopes will be revegetated to protect erosion. Riprap has also been placed to protect pond slopes and embankments near the discharge structures.

### **5.3.3.5 Highwalls**

No highwalls are located within the permitted boundary.

### **5.3.3.6 MSHA Criteria**

No sedimentation ponds in the permit area meet the size criteria of 30 CFR 216(a).

### **5.3.3.7 Pond Operation and Maintenance Plans**

Each sedimentation pond is designed in accordance with R645-301-740. Details of these designs are presented in Chapter 7.

The sedimentation ponds are operated as containment structures, with spillways to discharge water during a storm that exceeds the design capacity. Excess water following a runoff

event is held in the ponds until the suspended sediment settles. Water then evaporates, soaks into the ground, or is decanted using a portable pump. Water that is pumped from the ponds will be used for dust suppression at the site.

Inspections of the sedimentation ponds are conducted on a quarterly basis (see Section 5.1.4.3). Maintenance that is required to keep the ponds in good working condition is performed on an as-needed basis.

Sediment is removed from the ponds when it accumulates to 60 percent of the design sediment storage volume. If coal collects in the ponds, this coal will be processed in the coal cleaning facility. Non-coal sediment will be blended with the byproduct material.

### **5.3.4 Roads**

#### **5.3.4.1 Location, Design, Construction, Reconstruction, Use, Maintenance, and Reclamation**

**Control of Damage to Public or Private Property.** All roads used by BRCW were designed in accordance with applicable county and facility-use requirements. By designing according to these standards, damage to public or private property has been minimized.

**Road Surfacing.** The surface of the facility access road from Ridge Road to the office trailer and the North Hoop ~~R~~oad within the permit area is currently surfaced with gravel and is maintained to minimize ruts and pot holes (see Section 5.2.7.2). No acid- or toxic-forming materials have been or will be used in the road surfaces.

**Slope Stability.** There are two road embankments within the permit area (the dump bin road and the loading silo road). No road slope stability issues have been noted at the site. Given the low profile of these structures and their historic stability, no slope stability analyses of road embankments are considered necessary.

### **5.3.4.2 Environmental Protection and Safety**

Safety and environmental protection were primary concerns during the design and construction of the access road. The grade, width, and surface materials used for the roads were selected to be appropriate for the planned duration and use of the roads.

### **5.3.4.3 Primary Roads**

All ~~facility~~primary roads at the site have been designed, constructed, and will be maintained to meet the requirements of Utah Administrative Rules R645-301-358, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-542.600, R645-301-542.600, and R645-301-762. Furthermore, the roads have the following characteristics:

- They are located on a stable surface,
- They have been constructed with a sufficiently durable surface for the traffic volume and vehicle speeds on the road,
- They are routinely maintained, and
- Culverts have been designed, constructed, and are maintained to withstand the loads imparted by the vehicle traffic on the road.

### **5.3.5 Spoil**

No spoil is generated in the permit area.

### **5.3.6 Coal Mine Waste**

Since there is no coal mining at this facility, there is no generation of coal mine waste. The Wellington Dry-Coal Cleaning Facility has been designed to operate so that all material brought on site is converted into a marketable product. Therefore, this material is considered a product, not a

waste. This is accomplished by blending various grades of coal products for use or subsequent sale by clients. Although some of the material that is temporarily stockpiled at the site may have been considered coal processing waste at the off-site location from which it is shipped, the material is considered coal prior to receipt on site by BRCW (see Section 5.1.2.1). Since coal storage piles in the permit area are frequently disturbed, no compaction is necessary.

### **5.3.7 Regraded Slopes**

Given the relatively flat nature of the site, reclamation of this facility will not involve significant regrading of slopes.

## **5.40 Reclamation Plan**

### **5.4.1 General**

As indicated in Section 2.2.2.2 of this application, the soil at the BRCW facility is poorly suited for agricultural use. Furthermore, native vegetation in the area is poorly suited for rangeland use of the site (see Section 3.2.1). Hence, in accordance with R645-301-413.120, rather than restoring the land to its pre-operations use it will be restored to a higher or better post-operations industrial land use consistent with the current zoning of the site and adjacent areas. Since the future owner of the site has not yet been identified, the specific industrial use of the site cannot yet be established. This use will, of necessity however, be consistent with the land-use zoning of the site or such variances to that zoning as permitted by the zoning authority at the time. The extent of site restoration following operations will be determined in consultation with the future land owner. At the end of BRCW operations at the site, BRCW will provide the following to DOGM:

- The name of the entity responsible for post-mining land use,
- A statement from that entity identifying their needs for the property, and
- A right of entry agreement between BRCW and the site user if other than BRCW.

Alternatively, if this information cannot be provided, BRCW will provide DOGM with a clear and concise description of methods to be used for reclamation of the site.

Under the industrial post-operation land-use scenario, the extent of future site reclamation is not currently known. However, the following minimum conditions will be met at the end of BRCW operations at the site:

- All coal product piles or other created stockpiles will be cleaned up to a reasonable level and the site will be graded to the extent required by the future land-owner agreement,
- Permanent structures will be removed unless their continued presence is consistent with the post-operations land use, and
- No physical hazards (e.g., exposed wiring, trip/fall/trap hazards, etc.) will be left in place.

For the sake of developing a reclamation cost estimate, it is assumed in this permit application that the 9.7-acre area ~~occupied by the large coal storage piles north~~south of the ~~southern extent of the facility~~Middle Loop Road will be revegetated, with the runoff- and sediment-control structures being retained for use by the future landowner. This area is noted on Plate 5-2. Given the industrial zoning and operations in the region, it is further assumed that the area north of the Middle Loop Road will be retained for future industrial purposes. It is also assumed for the sake of reclamation cost estimating that all surface structures will be removed from the remaining areas and, given the economic value of the material, that all remaining coal will be hauled from the area to the Savage coal terminal and given to the owner of that site for subsequent sale and/or blending prior to reclamation. As noted in several sections of this Chapter, no coal mine waste exists or is generated at the site. It is furthermore assumed that all coal, trash, and toxic materials will be removed or reclaimed and the ground will be regraded upon site closure as indicated on Plate 5-2. Items assumed to remain following closure of the site include site roads, parking areas, utilities, the septic system, drainage-control structures, the exterior fence, and ramps (see Plate 5-2).

On areas not revegetated, stabilization of the reclaimed surface will be achieved by applying a minimum of 2 inches of well-graded road base over the area. This road base will be treated with calcium or magnesium chloride which is tilled or graded into the road base at a rate of

at least 1.5% chloride based on the dry weight of the aggregate. Research conducted by the U.S. Forest Service<sup>1</sup> indicates that such treatment will provide a minimum of 10 years of adequate surface stabilization.

#### **5.4.1.1 Commitment**

Upon the permanent cessation of operations at the Wellington Dry-Coal Cleaning Facility, BRCW will reclaim the site so that it is compatible with future industrial uses for which the property is zoned. This will include removal of remaining coal stockpiles and coal processing structures and equipment. Stockpiled topsoil will be redistributed over the 9.7-acre area in the south portion of the site and this area will be revegetated using the approved seed mix. Since future uses of the property are expected to benefit from existing site improvements, much of the site, including roads, parking areas, ramps, utilities, fencing, drainage control structures, and the septic system will be left in place.

#### **5.4.1.2 Surface Coal Mining and Reclamation Activities**

No surface coal mining and reclamation activities will be conducted in the permit area.

#### **5.4.1.3 Underground Coal Mining and Reclamation Activities**

No underground coal mining and reclamation activities will be conducted in the permit area.

#### **5.4.1.4 Environmental Protection Performance Standards**

The plan presented herein is designed to meet the requirements of R645-301 and the environmental protection performance standards of the State Program.

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<sup>1</sup> Monlux, S. and M.R. Mitchell. 2006. Surface-Aggregate Stabilization with Chloride Materials. USDA Forest Service, National Technology and Development Program. Publication No. 0677-1805. San Dimas Technology and Development Center. San Dimas, CA

## **5.4.2 Narratives, Maps, and Plans**

### **5.4.2.1 Reclamation Timetable**

A timetable for the completion of each major step in the reclamation plan is presented in Table 5-2.

### **5.4.2.2 Plan for Backfilling, Soil Stabilization, Compacting, and Grading**

Since reclamation is intended to restore the site for future industrial use, no significant backfilling, soil stabilization, compacting, or grading will occur. Any remaining coal piles will be removed and either sold as a product or hauled to the nearby Savage coal terminal. After the coal processing equipment is removed, stockpiled topsoil will be redistributed over the disturbed areas not intended for re-disturbance by the future site owner and these areas will be revegetated using the approved seed mix. The sedimentation ponds and appurtenant ditches will be left in place for the next landowner. A discussion of the ability of these ponds to meet the permanent impoundment criteria of R645-301-733.220 through 733.226 is provided in Section 7.3.3.2 of this permit application.

As has been mentioned previously, the site needs of an as-yet undefined future landowner have not yet been determined. It is assumed for bonding purposes that the roadways and their associated fill areas, as well as the runoff control ditches and sedimentation ponds, will be needed to support the site uses of future landowner following closure of the BRCW facility. If the roadways, fill areas, bin/reclaim tunnels, and drainage structures are not needed by the future landowner, the responsibility to remove these structures will be subject of contract arrangements between BRCW and the future landowner.

### **5.4.2.3 Final Surface Configuration Maps and Cross Sections**

It is intended that the final surface configuration will be very similar to the current site. The site office and processing structures will be removed. However, no extensive site regrading is anticipated. The anticipated final surface configuration is shown on Plate 5-2.

#### **5.4.2.4 Removal of Temporary Structures**

Coal processing equipment and structures will be removed during reclamation. To the extent possible, these structures and facilities will be salvaged. Those materials requiring off-site disposal will be placed in a licensed landfill. Final decisions regarding salvage or disposal of structures and equipment will be made just prior to reclamation following an assessment of the salvageability of the structures and equipment.

To support the continuing industrial use of the site, several structures will be left in place. These structures include the following:

- Septic system,
- Roads and parking areas,
- Truck dump and loadout hopper embankments,
- Diversions, culverts, and sedimentation ponds, and
- Perimeter fence

#### **5.4.2.5 Removal of Sedimentation Ponds**

The sedimentation ponds will be left in place for the future landowner. A discussion of the ability of these ponds to meet the permanent impoundment criteria of R645-301-733.220 through 733.226 is provided in Section 7.3.3.2 of this permit application.

#### **5.4.2.6 Roads**

All roads and parking areas within the permit area will be left in place for the future landowner.

#### **5.4.2.7 Final Abandonment of Mine Openings and Disposal Areas**

There are no mine openings or disposal areas within the permit area.

#### **5.4.2.8 Estimated Cost of Reclamation**

The estimated cost to reclaim the Wellington Dry-Coal Cleaning Facility is provided in Chapter 8. Estimated quantities of materials involved in reclamation are also provided in Chapter 8.

### **5.50 Reclamation Design Criteria and Plans**

#### **5.5.1 Casing and Sealing of Underground Openings**

There are no underground openings within the permit area.

#### **5.5.2 Permanent Features**

##### **5.5.2.1 Small Depressions**

Site reclamation will be performed to restore the facility for future industrial use. Roads and diversions will be left in place. Due to the low slope angles present at the site and the presence of roads and diversions to intercept surface runoff, small depressions will not be necessary.

##### **5.5.2.2 Permanent Impoundments**

No coal or coal waste impoundments exist within the permitted boundary. The two sedimentation ponds will be left intact for the future landowner. A discussion of the ability of these ponds to meet the permanent impoundment criteria of R645-301-733.220 through 733.226 is provided in Section 7.3.3.2 of this permit application.

### **5.5.3 Backfilling and Grading**

Plans for backfilling and grading of the site upon reclamation have been presented in Section 5.4.2.2. This plan was designed to comply with the applicable requirements of R645-301-500 and R645-301-700. As indicated in Section 5.4.2.2, backfilling and grading operations will be conducted in a controlled manner.

#### **5.5.3.1 Disturbed Area Backfilling and Grading**

**Approximate Original Contour.** The disturbed area will not be significantly altered from the approximate original contour.

**Elimination of Highwalls, Spoil Piles, and Depressions.** No highwalls or spoil piles exist at the site. Two depressions that serve as sedimentation ponds will be left intact for the future landowner. A discussion of the ability of these ponds to meet the permanent impoundment criteria of R645-301-733.220 through 733.226 is provided in Section 7.3.3.2 of this permit application.

**Slope Stability.** No significant slopes exist within the permitted boundary that will require regrading.

**Erosion and Water Pollution.** Existing sediment-control structures will be left in place to minimize water pollution and erosion. Additional water-quality concerns do not exist at the site (see Chapter 7).

**Post-Mining Land Use.** The disturbed area will be backfilled and regraded in a manner that supports the post-mining industrial land use.

#### **5.5.3.2 Spoil and Waste**

**Spoil.** No spoil is generated within the permit area.

**Refuse Piles.** No refuse piles exist within the permit area.

**Coal Processing Waste.** No coal processing waste exists within the permit area. It is possible that some coal will exist on site prior to reclamation. As noted on Plate 5-1, the quantity of coal on site during a December 2016 survey was 88,538 tons. For the sake of the reclamation bond, it was assumed that 95,000 tons (141,000 yd<sup>3</sup> based on a unit weight of 50 lb/ft<sup>3</sup>) of coal would be on site at the time of reclamation and that all of this coal would be hauled to the Savage coal terminal as part of the reclamation effort. The owner of the Savage coal terminal has indicated that they will accept this residual coal at no cost. Therefore, the reclamation cost estimate accounts only for loading, hauling, and dumping of the residual coal at the Savage facility.

#### **5.5.3.3 Exposed Coal Seams, Acid- and Toxic-Forming Materials, and Combustible Materials**

**Exposed Coal Seams.** No coal seams will be exposed as part of this operation.

**Acid- and Toxic-Forming Materials.** No acid-forming materials exist at the site.

**Combustible Materials.** No combustible materials will be exposed as part of coal cleaning operations. All combustible materials that are used or produced during operations will be disposed of off site at a proper disposal facility.

#### **5.5.3.4 Cut-and-Fill Terraces**

No cut and fill terraces are present at the facility.

#### **5.5.3.5 Highwalls From Previously Mined Areas**

No highwalls exist within the permit area.

#### **5.5.3.6 Approximate Original Contour**

The facility has been constructed in a relatively flat area, part of which was previously disturbed. Only minor alterations have been made to the original contour to level the site and to achieve proper drainage of storm water runoff. Since the site remains relatively level, the existing contour approximates the original contour. In addition, the site will be used for industrial purposes following reclamation of the facility; therefore, no substantial regrading of the site is needed during reclamation.

#### **5.5.3.7 Backfilling and Grading - Thin Overburden**

No surface coal mining and reclamation activities involving thin overburden occur within the permit area.

#### **5.5.3.8 Backfilling and Grading - Thick Overburden**

No surface coal mining and reclamation activities involving thick overburden occur within the permit area.

#### **5.5.3.9 Regrading of Settled and Revegetated Fills**

No regrading of settled and revegetated fills is anticipated in the permit area.

### **5.60 Performance Standards**

Coal mining and reclamation operations at the Wellington Dry-Coal Cleaning Facility will be conducted in accordance with the approved permit and the requirements of R645-301-510 through R645-301-553.

**TABLE 5-1**

Permit Area Structures

Structure <sup>(a)</sup>
Truck Scale (TS-1)
Truck Scale (TS-2)
Truck Dump Hopper
Blending Hopper
Plant Feed Hopper
Alternate Truck Loading Hopper
Radial Stacker Feed Conveyor (C-01)
Plant Feeder Conveyor (C-02)
Screen Feed Conveyor (C-03)
Fines Feed Conveyor (C-04)
Coarse Feed Conveyor (C-05)
By-Product Conveyor (C-06)
Product Conveyor (C-07)
200 Ton Bin Feed Conveyor
Self-Cleaning Belt Magnet
Screen with Support Structure
Crusher with Support Structure
Air Jigs with Fans and Support Structure
Bag Houses with Fans
Collected Dust Transport System
Raw Feed Radial Stacker (RS-01)
Product Radial Stacker (RS-02)
By-Product Radial Stacker (RS-03)
Diverter Gate
200 Ton Bin
Loading Chutes with Flow Control Gates

<sup>(a)</sup> See Plate 5-1 for location within the facility

**TABLE 5-2**

Reclamation Timetable

Activity	Approximate Time
Stockpile residual coal-bearing materials on site	½ week
Process residual coal-bearing materials in facility	2 weeks
Remove coal and process byproduct	½ week
Remove coal-processing equipment <ul style="list-style-type: none"> <li>• Conveyors C-1 through C-8</li> <li>• Radial stackers RS-1 through RS-3</li> <li>• Air jig/baghouse</li> <li>• Crusher</li> <li>• Truck dump</li> <li>• Silo</li> <li>• Plant feed hopper</li> <li>• Alternate loadout hopper</li> <li>• Truck scales TS-1 and TS-2</li> </ul>	4 weeks
Remove remaining structures to be retained	1 week
Grade minor areas and spread topsoil	½ week
Revegetate regraded areas	½ week
<b>APPROXIMATE TOTAL TIME</b>	<b>9 weeks</b>

BRC Wellington LLC  
| Dry-Coal Cleaning Facility

Permit Application  
~~June-October~~ 2017

**APPENDIX 5-1**

Road Certification



**Utah Division of Air Quality  
New Source Review Section**

Date 12/13/17 ~~12/14/17~~ **UTAH** DEPARTMENT OF ENVIRONMENTAL QUALITY

**Form 1  
Notice of Intent (NOI)**

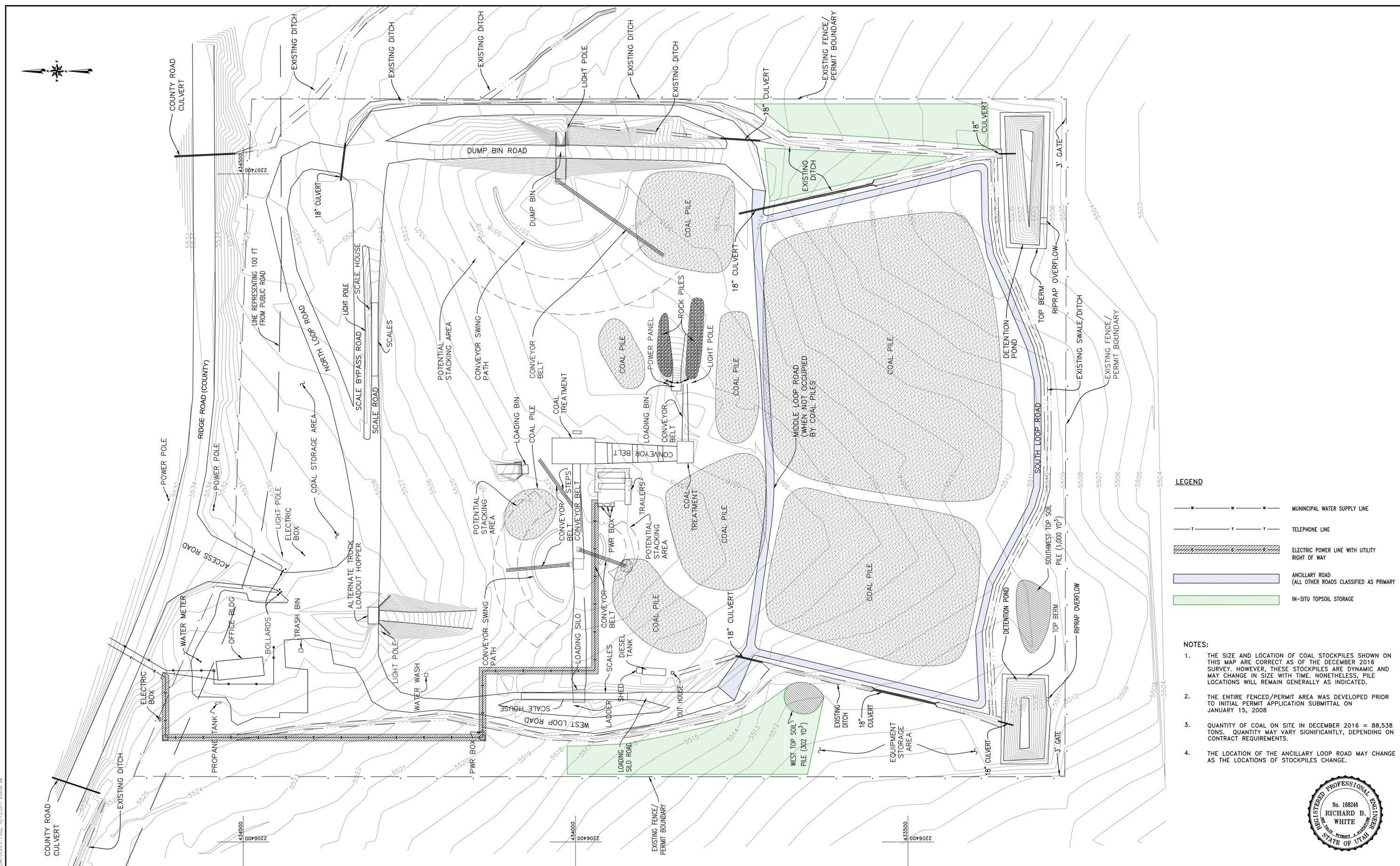
**DEC 13 2017**

DIVISION OF AIR QUALITY

Application for:     Initial Approval Order     Approval Order Modification

APPROVAL ORDER MUST BE ISSUED BEFORE ANY CONSTRUCTION OR INSTALLATION CAN BEGIN. This is not a stand alone document; please refer to UAC R307-401 and the published NOI guidebook for information on requirements of the specified information below. Please print or type all information requested. All outlined information requested must be accurate and completed before DAQ can determine that an NOI is complete and an engineering review can be initiated. If you have any questions, contact the Division of Air Quality at (801) 536-4000 and ask to speak with a New Source Review Engineer. Written inquiries may be addressed to: Division of Air Quality, New Source Review Section, P.O. Box 144820, Salt Lake City, Utah 84114-4820.

<b>General Owner and Facility Information</b>		R307-401-5(2)(k)
<p>1. Filing Fee Paid*</p>	<p>2. Application Fee Paid*</p>	
<p>3. Company name and address: BRC WELLINGTON LLC 1865 W RIDGE RD WELLINGTON, UTAH 84654</p> <p>Phone No.: 435-613-1631 Fax No.:</p>	<p>4. Company** contact for environmental matters:  EARTHFAX ENGINEERING GROUP LLC.</p> <p>Phone no.: 801-561-1555-205 Email: ANARTEH@EARTHFAX.COM <i>** Company contact only; consultant or independent contractor contact information can be provided in a cover letter</i></p>	
<p>5. Facility name and address (if different from above):</p> <p>Phone no.: Fax no.:</p>	<p>6. Owners name and address: BRC WELLINGTON LLC 1865 W RIDGE RD WELLINGTON, UTAH 84654</p> <p>Phone no.: 435-613-1631 Fax no.:</p>	
<p>7. Property Universal Transverse Mercator coordinates (UTM), including System and Datum: Easting: 519957.32</p> <p>Northing: 4374938.40</p> <p>System: UTM</p> <p>Datum: WGS-84</p>	<p>8. County where the facility is located in:  CARBON</p> <p>9. Standard Industrial Classification Code:  2999</p>	



LEGEND

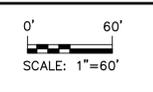
- MUNICIPAL WATER SUPPLY LINE
- TELEPHONE LINE
- ELECTRIC POWER LINE WITH UTILITY RIGHT OF WAY
- ANCILLARY ROAD (ALL OTHER ROADS CLASSIFIED AS PRIMARY)
- IN-SITU TOPSOIL STORAGE

NOTES:

1. THE SIZE AND LOCATION OF COAL STOCKPILES SHOWN ON THIS MAP ARE CORRECT AS OF THE DECEMBER 2016 SURVEY. HOWEVER, THESE STOCKPILES ARE DYNAMIC AND MAY CHANGE IN SIZE WITH TIME. NONETHELESS, PILE LOCATIONS WILL REMAIN GENERALLY AS INDICATED.
2. THE ENTIRE FENCED/PERMIT AREA WAS DEVELOPED PRIOR TO INITIAL PERMIT APPLICATION SUBMITTAL ON JANUARY 15, 2008
3. QUANTITY OF COAL ON SITE IN DECEMBER 2016 = 88,538 TONS. QUANTITY MAY VARY SIGNIFICANTLY, DEPENDING ON CONTRACT REQUIREMENTS.
4. THE LOCATION OF THE ANCILLARY LOOP ROAD MAY CHANGE AS THE LOCATIONS OF STOCKPILES CHANGE.



**EarthFax Engineering Group, LLC**  
Engineers/Scientists



BASE MAP: SURVEY PERFORMED BY H&H ENGINEERING AND SURVEYING, SEPTEMBER 8, 2008. COORDINATES SHOWN ARE STATE PLANE NAD 27.

REVISIONS	DATE	BY	DESCRIPTION
	03/29/11	RBW	ADDED TOPSOIL QUANTITIES
	05/30/17	RBW	SITE UPDATE
	10/12/17	RBW	SITE UPDATE

DRAWN BY: KHB  
CHECKED BY: RBW  
DATE: 10/2017  
APPROVED BY: RBW  
DWG DATA: UC1461\01\DOGM PERMIT\ PLATES-1.DWG

BRC WELLINGTON, LLC  
1865 WEST RIDGE ROAD  
WELLINGTON, UTAH 841654

PLATE 5-1  
GENERAL SITE MAP  
WELLINGTON DRY COAL CLEANING FACILITY

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